10

5

## **FILTER SET FOR FREQUENCY ANALYSIS**

## **Abstract of the Disclosure**

A system and method are disclosed for analyzing an input signal into a plurality of frequency components. In one embodiment, the input signal is processed with a first set of low pass filters to derive a first set of frequency components wherein the first set of low pass filters are arranged serially in a chain having a first low pass filter and a last low pass filter, the output of each low pass filter being fed to the next low pass filter in the chain until the last low pass filter. The output of the last low pass filter is downsampled to produce a downsampled signal. The downsampled signal is processed with a second set of low pass filters to derive a second set of frequency components.